

IoT SuperServer SYS-220HE-TNRD

X12 DP 2U Short-depth rear I/O System with 6 NVMe/SATA bays and redundant DC PSU



[More details here](#)

Key Applications

Telecom Micro Data Center, AI Inference and Machine Learning, Cloud Computing, Network Function Virtualization (NFV), 5G Networking,

Key Features

- Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable Processors;
- 32 DIMM Slots; Up to 8TB DRAM; Up to 8TB Intel® Optane™ Persistent Memory (up to 12TB with DRAM); 3200/2933/2666 ECC DDR4 LRDIMM; RDIMM; Intel® Optane™ Persistent Memory 200 series;
- 3 PCIe 4.0 x16 slots with GPU/Accelerator support (Default); 1 PCIe 4.0 x16 expansion slots (Optional);
- Flexible networking options with 2 AIOM networking slots (OCP NIC 3.0 compatible);
- Up to 6x 2.5" hot-swap drive bays with options to support NVMe/SATA drives;
- 6 heavy duty hot-swap fans with optimal fan speed control Rear I/O, tool-less design;
- 1300W DC power supplies;



Form Factor	2U Rackmount Enclosure: 436.88 x 88.9 x 574mm (17.2" x 3.5" x 22.6") Package: 598 x 247 x 938mm (23.5" x 9.7" x 36.9")
Processor	Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors
GPU	Max GPU Count: Up to 3 double-width or 3 single-width GPUs Supported GPU: NVIDIA PCIe: A10, A100, A40, T4 CPU-GPU Interconnect: PCIe 4.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: PCIe
System Memory	Slot Count: 32 DIMM slots Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM
Drive Bays Configuration	Default: Total 6 bays • 6 front hot-swap 2.5" NVMe/SAS*/SATA drive bays (*SAS support may require additional storage controller and/or cables) M.2: 2 M.2 NVMe/SATA slots (M-key 2280/22110)
Expansion Slots	Default • 2 PCIe 4.0 x8 FH/10.5"L slots • 2 PCIe 4.0 x8 FHHL slots • 2 PCIe 4.0 x16 AIOM slots (OCP 3.0 compatible) Option A • 1 PCIe 4.0 x16 FH/10.5"L slot • 1 PCIe 4.0 x16 FHHL slot • 2 PCIe 4.0 x16 AIOM slots (OCP 3.0 compatible) Option B • 6 PCIe 4.0 x8 FH/10.5"L slots • 2 PCIe 4.0 x8 FHHL slots • 2 PCIe 4.0 x16 AIOM slots (OCP 3.0 compatible) Option C • 3 PCIe 4.0 x16 FH/10.5"L slots • 1 PCIe 4.0 x16 FHHL slot • 2 PCIe 4.0 x16 AIOM slots (OCP 3.0 compatible)
On-Board Devices	SATA: SATA (6Gbps) ; RAID 0/1/5/10 support NVMe: NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required) Chipset: Intel® C621A Network Connectivity: Via AIOM

Input / Output

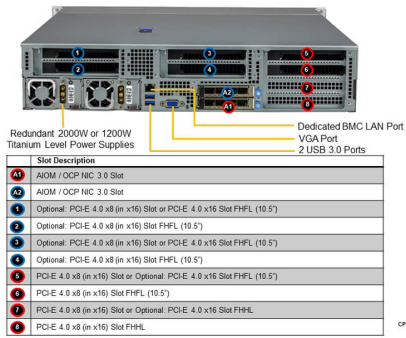
LAN: 1 RJ45 1 GbE Dedicated BMC LAN port
USB: 2 USB 2.0 ports(front)
Video: 1 VGA port



(Rear View – System)

Slot	Description
1 – 6	2.5" Hot-swap NVMe/SAS3*/SATA3 Drive Bays (NVMe from CPU1)*
7 – 12	2.5" Hot-swap NVMe/SAS3*/SATA3 Drive Bays (NVMe from CPU2)*

*SAS3 support requires additional parts in optional parts list



Slot	Description
1	AIOM / OCP NIC 3.0 Slot
2	AIOM / OCP NIC 3.0 Slot
3	Optional: PCIe 4.0 x8 (in x16) Slot or PCIe 4.0 x16 Slot FHFL (10.5")
4	Optional: PCIe 4.0 x8 (in x16) Slot FHFL (10.5")
5	Optional: PCIe 4.0 x8 (in x16) Slot or PCIe 4.0 x16 Slot FHFL (10.5")
6	Optional: PCIe 4.0 x8 (in x16) Slot FHFL (10.5")
7	PCIe 4.0 x8 (in x16) Slot or Optional: PCIe 4.0 x16 Slot FHFL (10.5")
8	PCIe 4.0 x8 (in x16) Slot FHFL (10.5")
9	PCIe 4.0 x8 (in x16) Slot or Optional: PCIe 4.0 x16 Slot FHFL
10	PCIe 4.0 x8 (in x16) Slot FHFL

CPU1 CPU2

System Cooling	Fans: Up to 6 Hot-swappable 60x60x56mm Fan(s) Air Shroud: 4 Air Shrouds
Power Supply	1x 1300W Redundant power supply
Management	SuperCloud Composer®; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Supermicro SuperDoctor® 5 (SD5); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!
PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory FAN: Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control Temperature: Monitoring for CPU and chassis environment Thermal Control for fan connectors
Dimensions and Weight	Weight: Gross Weight: 47.4 lbs (21.5 kg) Net Weight: 34.4 lbs (15.6 kg) Available Color: Silver
Operating Environment	Operating Temperature: 5°C to 35°C (41°F to 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)
Motherboard	Super X12DHM-6
Chassis	CSE-HE211-R000NFP